

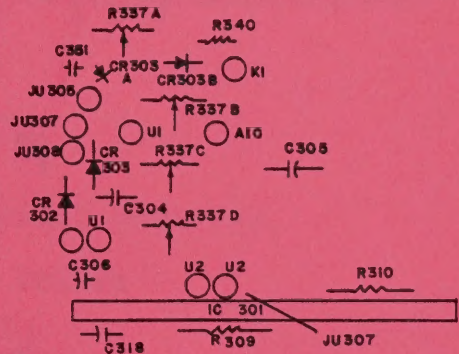
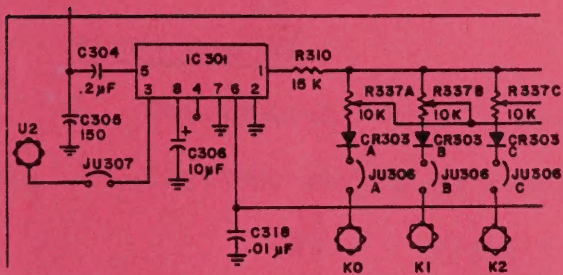
TO: ALL REGENCY COMMUNICATIONS PROFESSIONAL SALES AND SERVICE CENTERS
ALL REGENCY COMMUNICATIONS PROFESSIONAL SALES REPRESENTATIVES

MODELS AFFECTED: MICRO COM E21/24

SERVICE MANUAL CHANGES

A. Schematic Changes

1. Delete R305, R307, R308, Q303, and C307.
Add JU307 from U2 to Pin 3 IC301



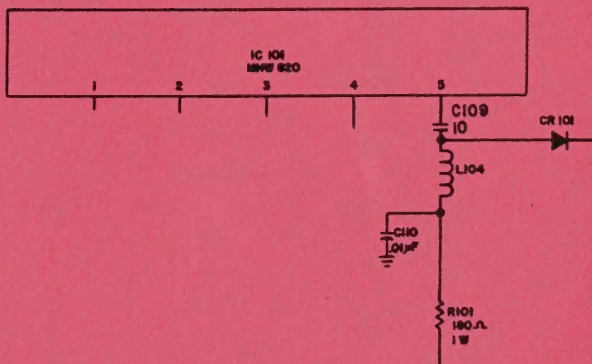
3. Change R364 from 330 ohm to 470 ohm comp $\frac{1}{4}$ W, 10%, P/N 4700-0471-042.
4. Change R347 from 560 ohm to 390 ohm carbon film $\frac{1}{4}$ W, 5%, P/N 4704-0391-032.
5. Change R309 from 100 ohm to 100 ohm comp $\frac{1}{4}$ W, 10%, P/N 4700-0101-042.

B. Add Option Tie Point drawing, 304-383, to Service Manual.

C. Remove Pages 12 and 13 from Service Manual. Replace with pages 12 and 13 attached to this Service Bulletin. Remove pages 44 and 45 from Service Manual and replace with pages 44 and 45 attached to this Service Bulletin.

D. On models manufactured since January 15, 1983 the following changes have been made:

1. Delete R364.
2. Change C109 from 6.8pF to 10pF, P/N 1540-0100-606.



TECHNICAL SERVICE DEPARTMENT
REGENCY COMMUNICATIONS, INC.

Refer to Table 1 and install each crystal in the position where it will give the desired result. Part of the crystal installation is insuring that the crystal, the crystal clip, and the heater resistors make good physical contact (See Figure 1-1) so that the heater circuit maintains a constant crystal temperature with ambient temperature variation. Wait at least two minutes after turning on the transceiver before netting crystals on frequency to allow the heater circuit to stabilize. When convenient, please return the stock crystals to Regency Communications, Inc., Parts Dept., 1227 South Patrick Drive, Satellite Beach, Florida 32937.

2-2 FREQUENCY SELECTION AND MA-359 INSTALLATION

If the desired frequency selection mode for a Micro Com E21 is one channel half-Duplex/Simplex (repeater talk-around) then make certain the half Duplex (receive) crystal is installed in the F1 position and the talk-around crystal in F2. Retune and test per the alignment procedure TP-14-489. Similarly, in the Micro Com E24 if the desired mode is three channels half Duplex with one of the channels Simplex (repeater talk-around) install the talk-around crystal in F2, its receive crystal in F1, and the remaining two crystals in F3 and F4. Retune and test per TP-14-489.

The following list of installation instructions will cover the other modes. Connection points with a * symbol (ex. P1*) are used solely in the installation of the Main Board Simplex Conversion Option and are not to be used unless specific instructions are given. Pins with the * symbol are clearly marked in the Option Tie Point drawing, 304-383.

Micro Com E21

1. One Channel Half Duplex

Crystal should be installed in F1 channel position.

	JO	Color	Connection Points	
Remove	207	Violet	S7	G
	208	Gray	S6	KØ
	209	White	S8	K1
	304	Yellow	CØ	CØ*
	305	Green	C1	C1*
	306	Blue	C5	C5*
	307	Violet	P1	P1*
Add	312	Red	CØ	KØ
	310	Black	blank, G connect blank end to CØ	

Retune the unit per Test Procedure TP-14-489 so that it meets the specifications. Remove F1-F2 label on option switch if desired.

2. Two Channel Half Duplex

Crystals should be installed in the F1 and F2 position.

	JO	Color	Connection Points	
Remove	304	Yellow	CØ	CØ*
	305	Green	C1	C1*
	306	Blue	C5	C5*
	307	Violet	P1	P1*
Add	312	Red	KØ	CØ
	311	Brown	K1	C1

3. One Channel Simplex

Receive crystal should be installed in the F1 position and the transmit crystal in F2.

	JO	Color	Connection Points	
Remove	207	Violet	S7	G
	208	Gray	S6	KØ
	209	White	S8	K1
Add	310	Black	blank, G connect blank end to K1	

Retune the unit per Test Procedure TP-14-489 so that it meets the specifications. Remove F1-F2 label on option switch if desired.

Micro Com E24

1. Four Channel Half Duplex

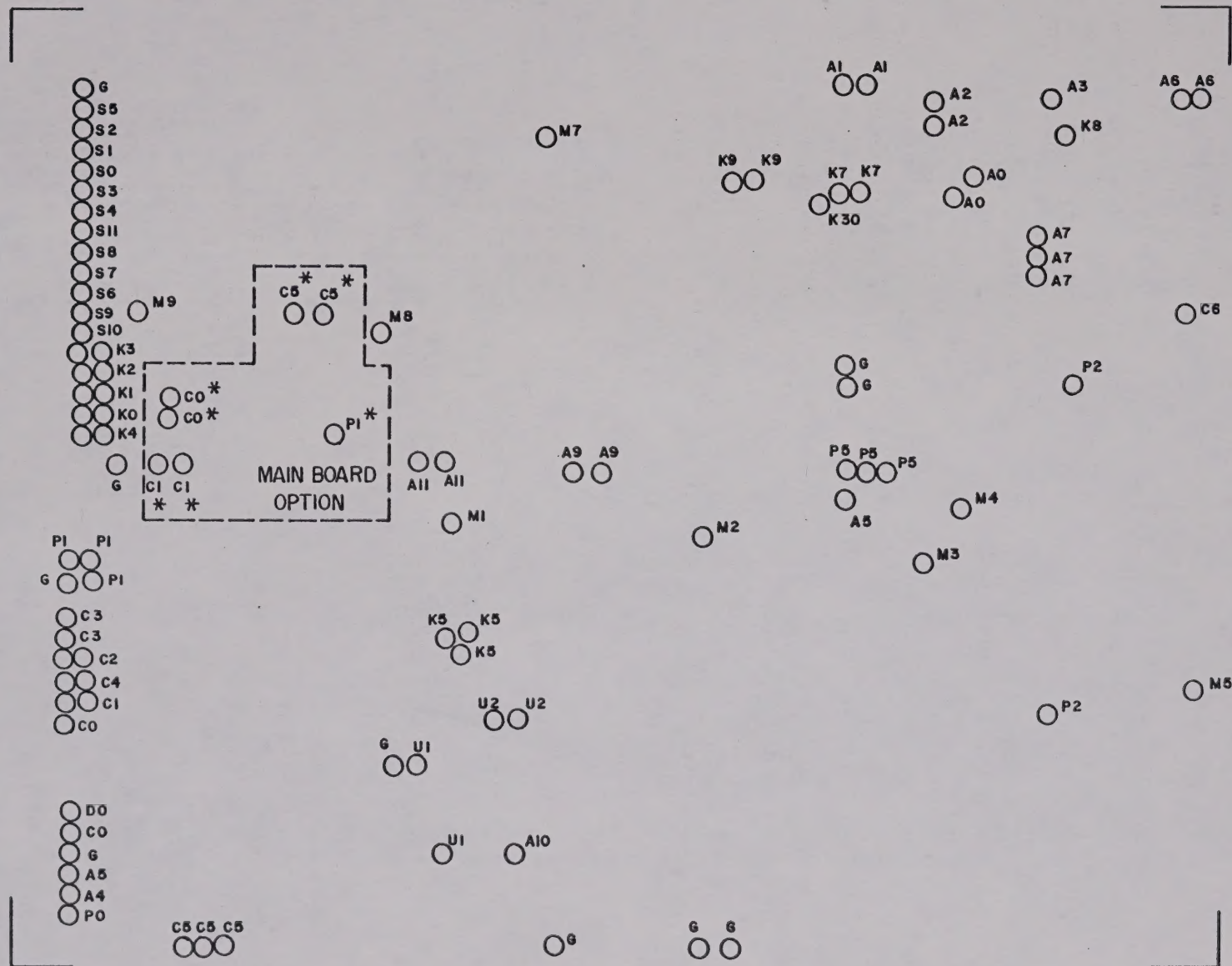
Install crystals in F1, F2, F3, and F4.

	JO	Color	Connection Points	
Remove	304	Yellow	CØ	CØ*
	305	Green	C1	C1*
	306	Blue	C5	C5*
	307	Violet	P1	P1*
Add	303	Green	C4	G

2. Two Channels Half Duplex/Simple (with repeater talk-around on both channels) - requires MA-359

Install the crystals used in the receiver in the F1 and F3 positions and the "talk-around" crystals in the F2 and F4 positions. The JO jumpers in the MA-359 jumper wire kit should be plugged onto the option board pins, matching the sleeve identifiers to the pins. Both the top and bottom covers of the transceiver must be removed.

3-4 OPTION TIE POINTS



*These option tie points are to be used ONLY in the installation of the Main Board Simplex Conversion Option for these are connections from the option to the radio. Other JO jumpers whose installation instructions do not call out the * tie point, if connected to a * option tie point, will NOT WORK.

3-5 PARTS LIST - MAIN BOARD

<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>PART NUMBER</u>
<u>RESISTORS</u> (All resistors are 1/4W 5% res car film unless otherwise noted)		
R201	res comp 4.7K 1/4W 10%	4700-0472-042
R202	22K ohm	4704-0223-032
R203	not used	
R204	res comp 100 ohm	4700-0101-042
R205	6.8K ohm	4704-0682-032
R206	22K ohm	4704-0223-032
R207	res comp 820 ohm 1/4W 10%	4700-0821-042
R208	res comp 820 ohm 1/4W 10%	4700-0821-042
R209	res comp 2.2K 1/4W 10%	4700-0222-042
R210	15K ohm	4704-0153-032
R211	res comp 100 ohm	4700-0101-042
R212	res comp 820 ohm 1/4W 10%	4700-0821-042
R213	3.0K ohm	4704-0392-032
R214	56K ohm	4704-0563-032
R215	6.8K ohm	4704-0682-032
R216	10K ohm	4704-0103-032
R217	470 ohm	4704-0471-032
R218	not used	
R219	not used	
R220	not used	
R221	not used	
R222	res comp 820 ohm 1/4W 10%	4700-0821-042
R223	1K ohm	4704-0102-032
R224	56K ohm	4704-0563-032
R225	27K ohm	4704-0273-032
R226	3.3K ohm	4704-0332-032
R227	res comp 2.2K 1/4W 10%	4700-0222-042
R228	47K ohm	4704-0473-032
R229	180K ohm	4704-0184-032
R230	82K ohm	4704-0823-032
R231	5.6K ohm	4704-0562-032
R232	100K ohm	4704-0104-032
R233	2.2K ohm	4704-0222-032
R234	10K ohm	4704-0103-032
R235	470K ohm	4704-0474-032
R236	220K ohm	4704-0224-032
R237	220K ohm	4704-0224-032
R238	2.7 ohm	4704-0279-032
R239	330 ohm	4704-0331-032
R240	47K ohm	4704-0473-032
R241	15K ohm	4704-0153-032
R242	680 ohm	4704-0681-032
R243	1.2 ohm 1W	4704-0129-045
R244	3.9K ohm	4704-0392-032
R245	res comp 100 ohm 1/4W 10%	4700-0101-042
R246	6.8K ohm	4704-0682-032
R247	4.7K ohm	4704-0472-032
R428	10K ohm	4704-0103-032
R249	10K ohm	4704-0103-032
R250	10K ohm	4704-0103-032
R251	10K ohm	4704-0103-032
R252	22K ohm	4704-0223-032